Government of Canada / Gouvernement du Canada

Canadian Forestry Service / Service Canadien des forêts

NO. 178

Canadian Forestry Service-Maritimes

TECHNICAL NOTE

FOREST INSECTS AND DISEASES IN CAPE BRETON HIGHLANDS NATIONAL PARK IN 1986

Personnel of the Forest Insect and Disease Survey regularly survey national parks for forest insect and disease conditions. Some of the conditions encountered in Cape Breton Highlands National Park in 1986 are discussed briefly below.

BIRCH SKELETONIZER, a minute insect, periodically increases in numbers and causes late summer browning of foliage and premature leaf drop of birch. Since foliage damage occurs late in the growing season, trees are not seriously affected unless high populations persist for several years. The present outbreak, which began in 1984, continued to spread and cause damage within the Park. Damage this year was patchy and less severe than in 1985, but more widespread throughout the Park. White birch suffered moderate and severe leaf browning at Ingonish Beach, Neils Harbour, South Harbour and Big Intervale and at Cape North. Light and moderate damage was observed at Pleasant Bay and throughout the Grand Anse River Valley. Trace and light damage was evident at the Cheticamp Park entrance.

SPRUCE BEETLE usually attacks trees that have been weakened by other factors such as age or defoliation. However, when population levels are high, healthy trees may also be attacked. This beetle continues to cause mortality of white spruce in the Park and elsewhere in Nova Scotia. Overall, mortality by this insect continued its downward trend again this year. Examination of spruce beetle attacked spruce stands in the Park in 1986 revealed that 50% of the trees were uninfested, 20% were living but infested and 30% were dead from beetle attack.

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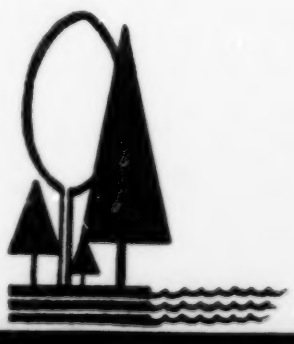

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iferous forests in the Park, as on the rest of Cape Breton Island, during the late 1970's and early 1980's. The new forest is beginning to poke its head up through the old dead stands and the Park is starting to take on a green appearance again. Spruce budworm populations have been very low during the past few years.

BIRCH CASEBEARER constructs a cigar-shaped case from leaf fragments and mines the leaves of birch and alder from within this case. Population levels of this insect were low in the Park this year. The highest degree of damage was observed west of Pleasant Bay and at the Cheticamp Park entrance where 24 and 49% of the white birch leaves were affected, respectively. Elsewhere only trace leaf browning was observed.

DETERIORATION OF WHITE BIRCH is characterized by a chocolate-brown discoloration and a scorch-like appearance of the leaves, at times restricted to the leaf margins. Affected leaves curl and start dropping as early as mid-August. This type of damage was noted on the lower branches of young white birch on French, MacKenzie and North Mountains. Browning was light to moderate. A leaf spot fungus was present on all samples collected.

BALSAM GALL MIDGE causes a gall to form on new balsam fir needles, inside of which it feeds. This insect was observed in varying numbers on balsam fir trees throughout the Park The most highly infested trees were understory balsam fir, located west of Neils Harbour, on which 16% of the current needles were affected.

FROST - late spring frost causes new shoots to droop, die and turn red. Damage was observed on young balsam fir on French, MacKenzie and North Mountains. Shoot mortality ranged from 1 to 25% on some trees.

WILLOW FLEA WEEVIL, a leafminer that prefers bayleaf willow, causes severe leaf browning on ornamental trees at Ingonish and Ingonish Beach.

OCEAN SALT SPRAY caused the leaves of exposed red maple, white birch, alder, cherry and ferns at Black Brook Cove to curl and appear scorched.

NORTHERN PITCH TWIG MOTH larvae form pitch nodules on the twigs and branches of their primary host jack pine. The larvae feed on the bark and wood inside these nodules. Sixty percent of the jack pine trees examined at Black Brook Cove averaged 1 to 2 nodules per tree.

GYPSY MOTH is a major pest of forest and shade trees in north-eastern United States, southern Ontario and southern Quebec. This insect has been found recently in western Nova Scotia. Twenty-five gypsy moth pheromone traps were placed in the Park by Parks' personnel in 1986 as part of the province-wide gypsy moth monitoring program. No moths were caught this year for the first time in a number of years. All Park visitors who find suspect gypsy moth should report them to Park personnel.

- A. Wayne MacKay
Forest Insect and Disease Survey

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May 1987